

ABSTRACT OF THE INVENTION

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A semiconductor device having a stack structure comprises: a single-piece substrate having a chip support surface serving as a main surface, a back surface, a plurality of connection terminals provided on the chip support surface and a plurality of solder balls provided on the back surface; a first semiconductor chip having a main surface, a back surface, a plurality of semiconductor devices on the main surface of the first semiconductor chip and a plurality of pads provided on the main surface of the first semiconductor chip; a second semiconductor chip having a main surface, a back surface, a plurality of semiconductor devices provided on the main surface of the second semiconductor chip and a plurality of pads provided on the main surface of the second semiconductor chip; and a resin sealing body formed on the chip support surface of the single-piece substrate and used for sealing the first semiconductor chip and the second semiconductor chip; and a plurality of wires for connecting the pads of the second semiconductor chip to the respective connection terminals provided on the single-piece substrate.

In the stack structure, the second semiconductor chip is made thinner than the first semiconductor chip. As a result, the structure package of the semiconductor device can be made thin.